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EXAMINER

GOFF II, JOHN L

ART UNIT

PAPER NUMBER

1791

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DELIVERY MODE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Continuation of 11. does NOT place the application in condition for allowance because:

The claims remain rejected the same as in the rejections set forth in the office action mailed 2/3/10 except for the cancelled claims removed from the rejection headings.

Applicants note,

“In the event this subsequent submission also ends up with reduced-quality photographic images for Appendices A-1 - A-5, such that the Examiner believes that the demonstration discussed in the Zinniel Declaration is not adequately shown in the photographic images, Applicants respectfully request permission from the Examiner to submit full color versions of the photographic images for Appendices A-1 - A-5. The high-quality photographic images for Appendices A-1 - A-5 were also included in the originally signed version of the Zinniel Declaration.”.

The images are considered sufficient to adequately show the demonstration discussed in the Zinniel Declaration without requiring the submission of further photographs.

Applicants argue,

“Neither Joseph nor Edmonds disclose or suggest the use of three-dimensional objects built using the fused deposition modeling technique, or the substantial elimination of surface effects due to the fused deposition modeling technique. Joseph and Edmond each directed to using vaporized solvents on injection-molded articles, such as to remove scratches, dents, blemishes, and small voids in plastic articles (e.g., for refurbishing such articles) (see e.g., Joseph, col. 4, lines 42-48; and Edmonds, col. 2, lines 43-51 and col. 3, lines 1-8).”.

Neither Joseph nor Edmonds teach using the solvents on injection-molded articles. Both references are generally directed to uniformly smoothing blemished surfaces of thermoplastic objects by exposure to vapors of a solvent there being no teaching or suggestion that the process would not perform the same on the blemished surfaces of the thermoplastic object taught by the admitted prior art as exemplified by Crump. Applicants additional arguments to Leyden were addressed in paragraph 7 of the office action mailed 7/28/08.

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Applicants further argue,

“In fact, when smoothing the surface of objects built with the fused deposition modeling technique to substantially eliminate porosity of the object at the object surface, voids and cavities that are intentionally formed during the build operation are desirably not filled during the claimed smoothing process.”.

The claims are not commensurate in scope with this argument as the claims do not require any unfilled voids or cavities following the smoothing process where the porosity is eliminated.

Applicants further argue,

“Furthermore, the statement that the Zinniel Declaration demonstrates that the admitted prior art as modified necessarily results in a reduced porosity erroneously mischaracterizes the Zinniel Declaration. The Zinniel Declaration expressly states that sealing effect at the surface of the 3D object would be recognized by people skilled in the art of rapid prototyping/manufacturing processes *based on the teachings in U.S. Patent Application No. 10/511,784 (the current patent application)* (Zinniel Decl., ¶ 11) (emphasis added). The Zinniel Declaration does not demonstrate that the admitted prior art as modified necessarily results in substantially eliminating porosity of the object at the object surface.”.

It is not clear why the admitted prior art as modified does not necessarily result in the reduced porosity. The reduced porosity currently claimed was not disclosed in the originally filed specification or claims. The Zinniel declaration was provided to evidence an inherent property of the invention, i.e. the reduction in porosity of an object formed by the fused deposition molding technique is not simply a possibility or probability but must occur following exposure of the object surface to vapors of a solvent. The admitted prior art as modified teaches all of the limitations of the claims such that the admitted prior art as modified must also eliminate the inherent porosity of the object surface. If it remains applicants contention that the admitted prior art as modified does not result in the same inherent property as applicants

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invention it appears the property is not inherent to applicants invention but rather a possibility or probability thereby raising a 35 USC 112 first paragraph issue of new matter.

Applicants arguments regarding unexpected results were addressed in paragraph 7 of the office action mailed 2/3/10 with it being further noted Joseph expressly describes voids are eliminated. Applicants arguments regarding long-felt have been considered and are not persuasive. Both Joseph and Edmonds evidence art recognized solutions for smoothing blemished thermoplastic object surfaces. Applicants have not provided objective evidence that an art recognized problem existed in the art for a long period of time without solution regarding the elimination of porosity inherent to the fused deposition modeling technique, e.g. the background of applicants specification does not describe the problem.

/John L. Goff/

Primary Examiner, Art Unit 1791